

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001055**Date Inspected:** 19-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wu Ming Kai & Cui Yi Ru**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 3 OBG:

The QA Inspector randomly observed ZPMC welder Wu Zhi Bin ID Number 049804, utilizing the Submerged Arc Welding (SAW) Process with ZPMC approved Weld Procedure Specification (WPS) WPS-B-T-2221-B-Lc2-S-1 in the 1G position to weld the fill and cover passes in a butt splice between 2 sections of 22 millimeter (mm) thick ASTM A709M-345T2-X Steel Plate at WJ EP002-01-002. The QA Inspector was informed by ZPMC CWI Wu Ming Kai, that this plate was to be cut into I-Ribs. The QA Inspector randomly observed Mr. Wu monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 531 amps, welding voltage 30.8 volts with a travel speed of 416 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Gu Caihong ID Number 053748, utilizing the Submerged Arc Welding (SAW) Process with ZPMC approved Weld Procedure Specification (WPS) WPS-B-T-2221-B-Lc2-S-1 in the 1G position to weld the fill and cover passes in a butt splice between Side Plate SP63 Sub-Assembly PL101A and PL101B at WJ SP063-01-053. The QA Inspector randomly observed ZPMC CWI Wu Ming Kai, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 520 amps, welding voltage 31 volts with a travel speed of 405 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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provides additional detail.

Bay 4 OBG:

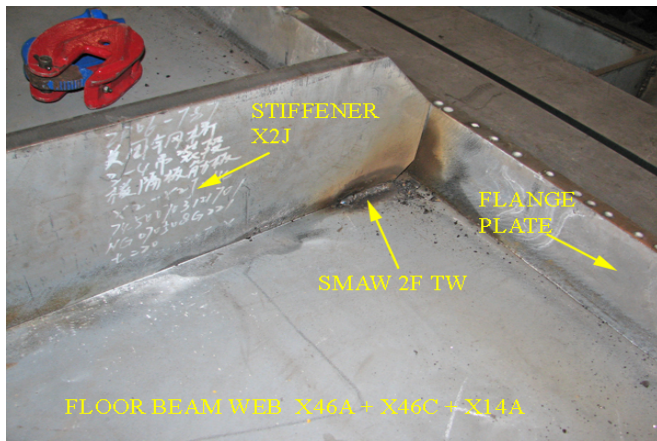
The QA Inspector utilized the Magnetic Particle Testing (MT) Method to perform random verification of MT performed by ZPMC on the cover passes in the FCAW fillet welds attaching T-Stiffeners to Side Plate SP65/PL102A and SP18/PL76C. There appeared to be no indications.

Bay 7 OBG:

The QA Inspector randomly observed ZPMC welder Wang Changfu ID Number 058102, utilizing the Shielded Metal Arc Welding (SMAW) Process with ZPMC approved WPS WPS-B-P-2112 in the 2F position to tack weld stiffeners piece marks X2K and X2J on Floor Beam Web FB001-01, Plates X46A + X46D + X14A. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Ren Jimzhu ID Number 044837, utilizing the SMAW Process with ZPMC approved WPS WPS-B-P-2122 in the 2F position to tack weld stiffeners piece marks X2E, X2F and X2H to Floor Beam Web FB001-03 Plates X46A + X46D + X14A. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed a ZPMC torch cutter utilizing a track mounted torch cutting apparatus to trim the edges of Floor Beam Sub-Assembly X12B+X17B.

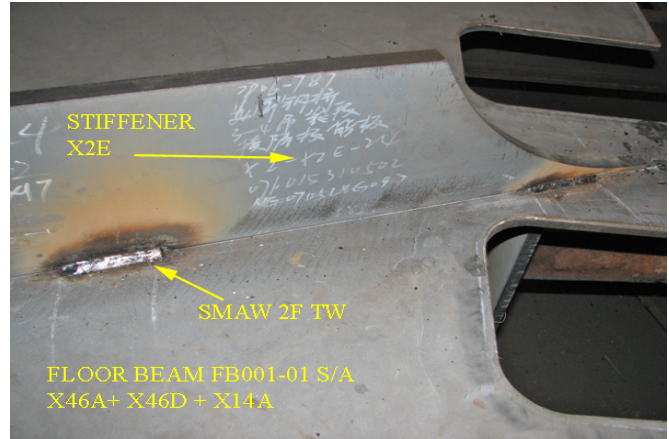
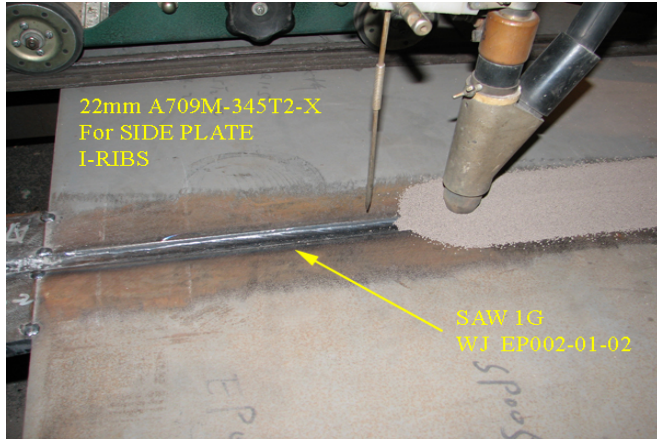


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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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### Summary of Conversations:

There were no relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Franco,Charlie	Quality Assurance Inspector
<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer

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